

FLOOD SALES TAX COMMITTEE
AGENDA FOR MAY 6, 2019

Cass County Commission
Conference Room
12:00 PM

1. Call to Order
2. Approve minutes from previous meeting
3. Flood sales tax fund update
4. Status of previously approved projects
5. Review of projects and selection of projects to be funded in 2019
6. Other business
7. Adjournment

cc: Local Media

**FLOOD SALES TAX COMMITTEE
FEBRUARY 4, 2019—1:00 PM**

1. MEETING TO ORDER

Commissioner Mary Scherling called a meeting of the Flood Sales Tax Committee to order on Monday, February 4, 2019, at 1:00 PM in the Commission Conference Room, Cass County Courthouse, with the following present: County Engineer Jason Benson; County Auditor Michael Montplaisir; Joint Water Resource District Representative Rodger Olson; County Commissioner Mary Scherling; County Commissioner Rick Steen; and County Administrator Robert Wilson.

Also present was Engineer Mike Opat, Moore Engineering.

2. MINUTES APPROVED

MOTION, passed

Mr. Steen moved and Mr. Benson seconded to approve the meeting minutes from November 19, 2018, as presented. Motion carried.

3. FEMA FLOODPLAIN MAPPING PROJECT

Mrs. Scherling said further research was done after the last meeting to bring clarity to the history of the FEMA Floodplain Mapping Project. After further review of the flood sales tax policy, this project is not eligible for funding through this committee.

Mr. Wilson said this committee previously recommended that the county commission consider reimbursing the Water Resource District for expenses related to the FEMA floodplain mapping. After further research into the history of the Water Resource District's involvement with FEMA mapping, a motion was found that was made during a 2013 Cass County Commission meeting that authorized a 50% cost share to the Cass County Joint Water Resource District, not to exceed \$40,000, for engineering services to act as the local coordinating agency for the Western Cass County Flood Insurance Study.

Mr. Olson said the most recent recommendation from this committee was a motion made at the last meeting to forward this request to the Cass County Commission. Mr. Steen said this committee should not have addressed the project request at all as the project does not qualify for Flood Sales Tax funds.

MOTION, passed

Mr. Steen moved and Mr. Montplaisir seconded to rescind the recommendation from the Flood Sales Tax Committee that the county commission consider reimbursing the Water Resource District retroactively, in addition to funding future expenses related to FEMA floodplain mapping. Discussion: Mr. Olson asked how the county commission will know to address this issue if the Flood Sales Tax Committee does not recommend it. Mr. Steen said the request can come from the Highway Department or the Cass County Joint Water Resource District.

Mrs. Scherling asked how the Eastern Cass County Flood Insurance Study was funded. Mr. Benson said Fargo paid for

surveyors for their own mapping for the study to ensure accuracy. Larger rural cities utilized engineering services already contracted for their city engineering work. Motion carried.

4. FLOOD SALES TAX FUNDING FORMULA

Mr. Montplaisir gave an overview of the Flood Sales Tax Fund, approved and proposed projects, and fund balance projections assuming different rates of growth. The county currently retains 9% of county flood sales tax proceeds with the remainder going to the Diversion Authority.

Mr. Montplaisir said the current unencumbered fund balance is \$5.3 million. Taking into account proposed projects and assuming the county keeps 6% of flood sales tax proceeds, the balance would still be \$5.3 million in 2030 with no sales tax growth. While the Diversion Authority needs every dollar available, the county has made it a priority to continue funding rural projects. Dropping the percentage retained by the county to 6% appears to be a safe amount that will allow the county to continue funding rural projects.

MOTION, passed

Mr. Montplaisir moved and Mr. Steen seconded to recommend that the county reserve 6% of county flood sales tax funds for rural projects, and to forward the recommendation to the Cass County Commission. Motion carried.

Mr. Montplaisir said after several years of negative growth, sales tax proceeds are beginning to come back.

5. ADJOURNMENT

There being no further business, the meeting was adjourned at 1:26 PM.

Cass County Sales Tax Activity (420)			
Cash Basis - 2019			
4/22/2019			
Date	Description	Amount	Balance
	Balance Forward		7,767,487.65
2019	Sales Tax	4,786,814.79	12,554,302.44
2019	Interest	50,868.26	12,605,170.70
1/8/2019	Diversion Board of Authority	(1,222,453.21)	11,382,717.49
2/12/2019	County Projects	(58,278.44)	11,324,439.05
2/5/2019	Diversion Board of Authority	(1,211,242.41)	10,113,196.64
2/28/2019	Diversion Board of Authority	(1,458,126.93)	8,655,069.71
4/2/2019	Diversion Board of Authority	(975,911.25)	7,679,158.46
			7,679,158.46
			7,679,158.46
			7,679,158.46

Reserved for County Projects - Cash	6,836,516.50	
Reserved for Diversion Project	842,641.96	7,679,158.46

Summary

2019 Receipts

Transfer	-
Sales Tax Revenue	4,786,814.79
Interest Revenue	50,868.26
Total Receipts	<u>4,837,683.05</u>

2019 Expenditures

Diversion Board of Authority	(4,867,733.80)
City of Fargo - Cash Flow Other Sources	-
County Projects	(58,278.44)
Land Purchase	-
Total Expenditures	<u>(4,926,012.24)</u>

Receipts over Expenditures (88,329.19)

Balance from 2018 7,767,487.65

Balance Current 2019 7,679,158.46

Reserve for County Projects 2019 Activity

Balance of Cash Carried forward from 2018	6,483,856.11	
2019 Reserves (9% Jan-Mar 6% Apr-Dec)	<u>410,938.83</u>	
Total	<u>6,894,794.94</u>	

County Projects - Expenses Paid in 2018

2013 City of Casselton - Levee Repairs	-	
2013 Maple-Steele - Dam Project	-	
2015 Normanna Township Slide Repair and Road Move	-	
2015 Upper Maple River Detention Study Phase II	-	
2015 Rush River Detention Study Phase II	-	
2015 Swan Creek Detention Study Phase II	-	
2015 Harwood Levee Improvements	-	
2015 Casselton Industrial Park Improvements	-	
2016 City of Mapleton Levee Raise	-	
2017 Sheldon Addition Ring Levee Project	-	
2018 City of Arthur Storm Sewer	58,278.44	
2018 City of Hunter Dam Projects	-	
2018 Red River Basin Commission	-	
2018 Mapleton Levy Recertification	-	
Total County Project Expenditures	<u>58,278.44</u>	-

Cash Balance Reserve for County Projects	<u>6,836,516.50</u>	
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Encumbrances:

2013 City of Casselton - Levee Repairs	(5,039.05)	138474
2013 Maple-Steele - Dam Project	(15,706.30)	138476
2015 Upper Maple River Detention Study Phase II	(45,500.00)	138490
2015 Rush River Detention Study Phase II	(45,500.00)	138490
2015 Swan Creek Detention Study Phase II	(34,509.41)	138490
2015 Harwood Levee Improvements	(102,149.53)	138475
2015 Casselton Industrial Park Improvements	(1,999.33)	138491
2016 City of Mapleton Levee Raise	(11,754.88)	138477
2017 Sheldon Addition Ring Levee Project	(462,750.00)	138472
2018 City of Arthur Storm Sewer	(187,979.02)	138473
2018 City of Hunter Dam Projects	(15,768.75)	138476
2018 Red River Basin Commission	(125,000.00)	138492
2018 Mapleton Levy Recertification	(30,323.00)	138478
Total Encumbrances	<u>(1,083,979.27)</u>	-

Available Balance for County Projects	<u>5,752,537.23</u>	-
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Current County Projects			
4/22/2019			
Project	Total Approved	Paid	Left to Pay
Round Hill Project	\$ 350,696.00	\$ 350,696.00	\$ -
City of Oxbow Diking	\$ 105,284.29	\$ 105,284.29	\$ -
2012 City of Argusville Diking	\$ 168,925.00	\$ 168,925.00	\$ -
2012 Maple-Steele WRD Study	\$ 20,562.00	\$ 20,562.00	\$ -
2012 City of Mapleton - Lift Station	\$ 52,500.00	\$ 52,500.00	\$ -
2013 Pontiac Township - Project No 73	\$ 448,000.00	\$ 448,000.00	\$ -
2013 City of Argusville - Levee improvement	\$ 23,874.73	\$ 23,874.73	\$ -
2013 City of Casselton - Levee Repairs	\$ 23,750.00	\$ 18,710.95	\$ 5,039.05
2013 Maple-Steele - Dam Project	\$ 17,500.00	\$ 1,793.70	\$ 15,706.30
2014 City of Mapleton Levee Recertification 2012-1	\$ 543,324.58	\$ 543,324.58	\$ -
2014 Pontiac township Project no 73 additional	\$ 52,000.00	\$ 52,000.00	\$ -
2014 Upper Maple River Dam	\$ 706,000.00	\$ 706,000.00	\$ -
2014 Lake Bertha Flood Water Detention (reduced from 242500)	\$ 66,215.45	\$ 66,215.45	\$ -
2014 Detention project Development	\$ -	\$ -	\$ -
2015 Normanna Township Slide Repair and Road Move	\$ 40,500.00	\$ 40,500.00	\$ -
2015 Upper Maple River Detention Study Phase II	\$ 45,500.00	\$ -	\$ 45,500.00
2015 Rush River Detention Study Phase II	\$ 45,500.00	\$ -	\$ 45,500.00
2015 Swan Creek Detention Study Phase II	\$ 45,500.00	\$ 10,990.59	\$ 34,509.41
2015 Harwood Levee Improvements	\$ 556,935.00	\$ 454,785.47	\$ 102,149.53
2015 Casselton Industrial Park Improvements	\$ 255,000.00	\$ 253,000.67	\$ 1,999.33
2015 Reed Township Road Raise	\$ 60,308.18	\$ 60,308.18	\$ -
2016 City of Mapleton Levee Raise	\$ 99,812.68	\$ 88,057.80	\$ 11,754.88
2016 City of Mapleton Levee Recert change order	\$ 14,867.00	\$ 14,867.00	\$ -
2016 Erie Dam Repairs (25,000 removed)	\$ -	\$ -	\$ -
2016 Absaraka Dam Repairs	\$ 11,183.50	\$ 11,183.50	\$ -
2016 Garsteig Dam Repairs	\$ 12,202.64	\$ 12,202.64	\$ -
2016 Embden Dam Repairs	\$ 10,263.87	\$ 10,263.87	\$ -
2016 Drain 77 Study Maple River Water Resource	\$ 20,000.00	\$ 20,000.00	\$ -
2017 Upper Maple River Dam Project	\$ 361,500.00	\$ 361,500.00	\$ -
2017 Erie Dam Project (10,000 removed)	\$ -	\$ -	\$ -
2017 Casselton Map Revision Project	\$ 12,472.45	\$ 12,472.45	\$ -
2017 Davenport Flood Risk Reduction Project	\$ 32,500.00	\$ 32,500.00	\$ -
2017 Sheldon Addition Ring Levee Project	\$ 462,750.00	\$ -	\$ 462,750.00
2017 Casselton Storm Water Improvments Projects	\$ 128,762.04	\$ 128,762.04	\$ -
2018 City of Arthur Storm Sewer	\$ 266,250.00	\$ 78,270.98	\$ 187,979.02
2018 City of Hunter Dam Projects	\$ 23,645.25	\$ 7,876.50	\$ 15,768.75
2018 Red River Basin Commission	\$ 125,000.00	\$ -	\$ 125,000.00
2018 Mapleton Levy Recertification	\$ 30,323.00	\$ -	\$ 30,323.00
Total	\$ 5,239,407.66	\$ 4,155,428.39	\$ 1,083,979.27

Reserve for County Projects 2018 Activity

Balance of Cash Carried forward from 2018	\$ 6,483,856.11
2018 Reserves (9%)	410,938.83
Total	6,894,794.94
Paid in 2019	58,278.44
Encumbrances	1,083,979.27
Un-encumbered Balance	<u>\$ 5,752,537.23</u>

February 27, 2019

RECEIVED
CASS COUNTY COMMISSION

FEB 27 2019

Maple-Steele
Joint Water
Resource District

Mary Scherling
Chair
Cass County Commission
P.O. Box 2806
Fargo, ND 58108-2806

Dear Chair Scherling:

RE: Upper Maple River Dam Outlet Channel Improvements – Cost-Share Request

The Upper Maple River Dam, located approximately five miles south of Hope, North Dakota, was recently constructed to provide flood retention in Cass County, Steele County and Barnes County. Due to recent high flow events, the dam has experienced significant erosion in the outlet channel downstream of the dam. The Maple-Steele Joint Water Resource District (District) has been developing a project to repair and improve the outlet channel. A preliminary design for the Upper Maple River Dam Outlet Channel Improvements Project (Project) has been completed and the project is currently in the funding phase. The Project will include reconstructing the failed side slopes, removing unsuitable material, and armoring the channel with riprap to improve the durability of the channel during high flows.

The District will be the Project sponsor and expects design and construction to be completed in 2019. Right of way acquisition is not required for this project, as the District already owns the lands needed for construction. The District has elected to move forward by filing funding applications for the design and construction of the channel improvements.

The District's consultants have developed an estimated cost of \$147,000, which includes construction costs, engineering costs and other related project activities. The District anticipates the North Dakota State Water Commission will fund 45% of the costs in accordance with its current cost-share policy. In addition, the District is anticipating that the Red River Joint Water Resource District will fund 65% of the remaining local share. That leaves a remaining local cost of \$28,297.50. As you may remember, the Cass County Flood Sales Tax Committee approved funding of the construction of the Upper Maple River Dam at a rate of 75% of the local share. With this letter and submission of supporting data, the District respectfully requests 75% cost-share on the balance of the local share from the Cass County Flood Sales Tax Committee for a total of \$21,233.13.

Enclosed is a map showing the location of the project, the preliminary plans and an *Engineer's Opinion of Probable Cost*. If you have any questions, please feel free to contact us or our project manager, Mike Opat, Moore Engineering, Inc., at 701-499-5867. Thank you.

Sincerely,

MAPLE-STEELE JOINT WATER RESOURCE DISTRICT



Carol Harbeke Lewis
Secretary-Treasurer

Enclosures

Rodger Olson
Chairman

Leonard, North Dakota

Josh Ihry
Manager

Hope, North Dakota

Gerald Melvin
Manager

Buffalo, North Dakota

Tor Bergstrom
Manager

Finley, North Dakota

Chad Miller
Manager

Buffalo, North Dakota

Greg Thykeson
Manager

Portland, North Dakota

Carol Harbeke Lewis
Secretary-Treasurer

1201 Main Avenue West
West Fargo, ND 58078-1301

701-298-2381

FAX 701-298-2397

wrđ@casscountynđ.gov

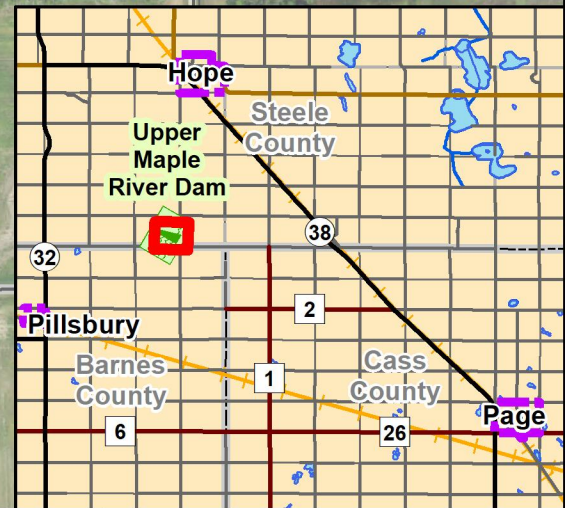
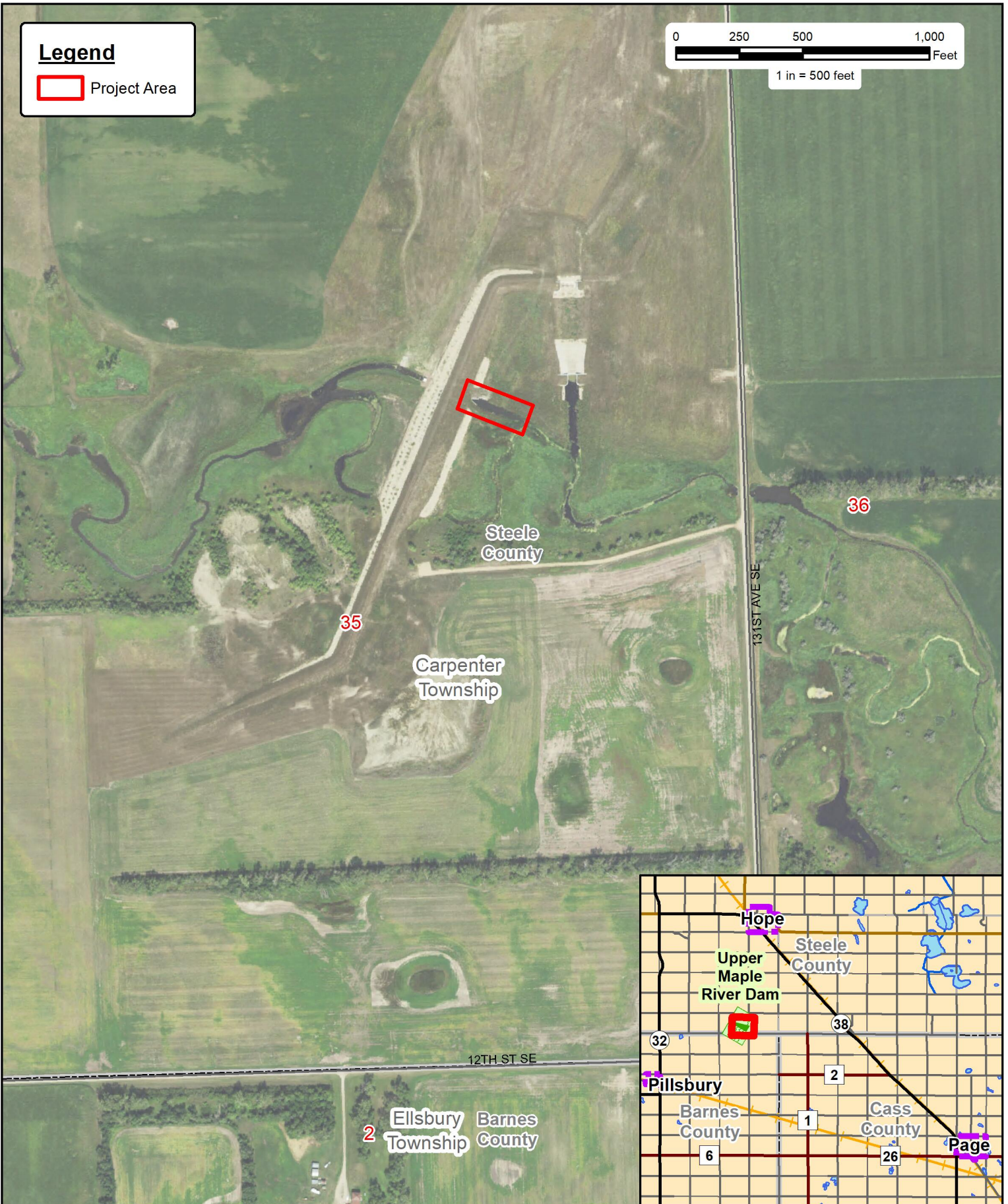
www.casscountynđ.gov

Legend

 Project Area

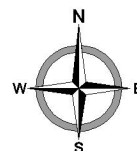
0 250 500 1,000 Feet

1 in = 500 feet



**PROPOSED EROSION PROTECTION PROJECT
UPPER MAPLE RIVER DAM
STEELE COUNTY, NORTH DAKOTA**

Created By: JWP Date Created: 01/28/19 Date Saved: 01/28/19 Date Exported: 01/28/19
Plotted By: Jordan prazak Parcel Date: N/A Aerial Image: 2017 County NAIP SIDS Elevation Data: N/A
Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988
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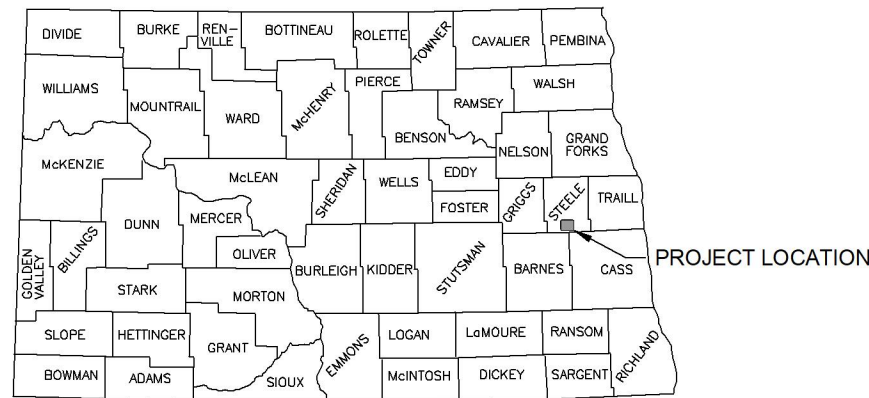


moore
engineering, inc.

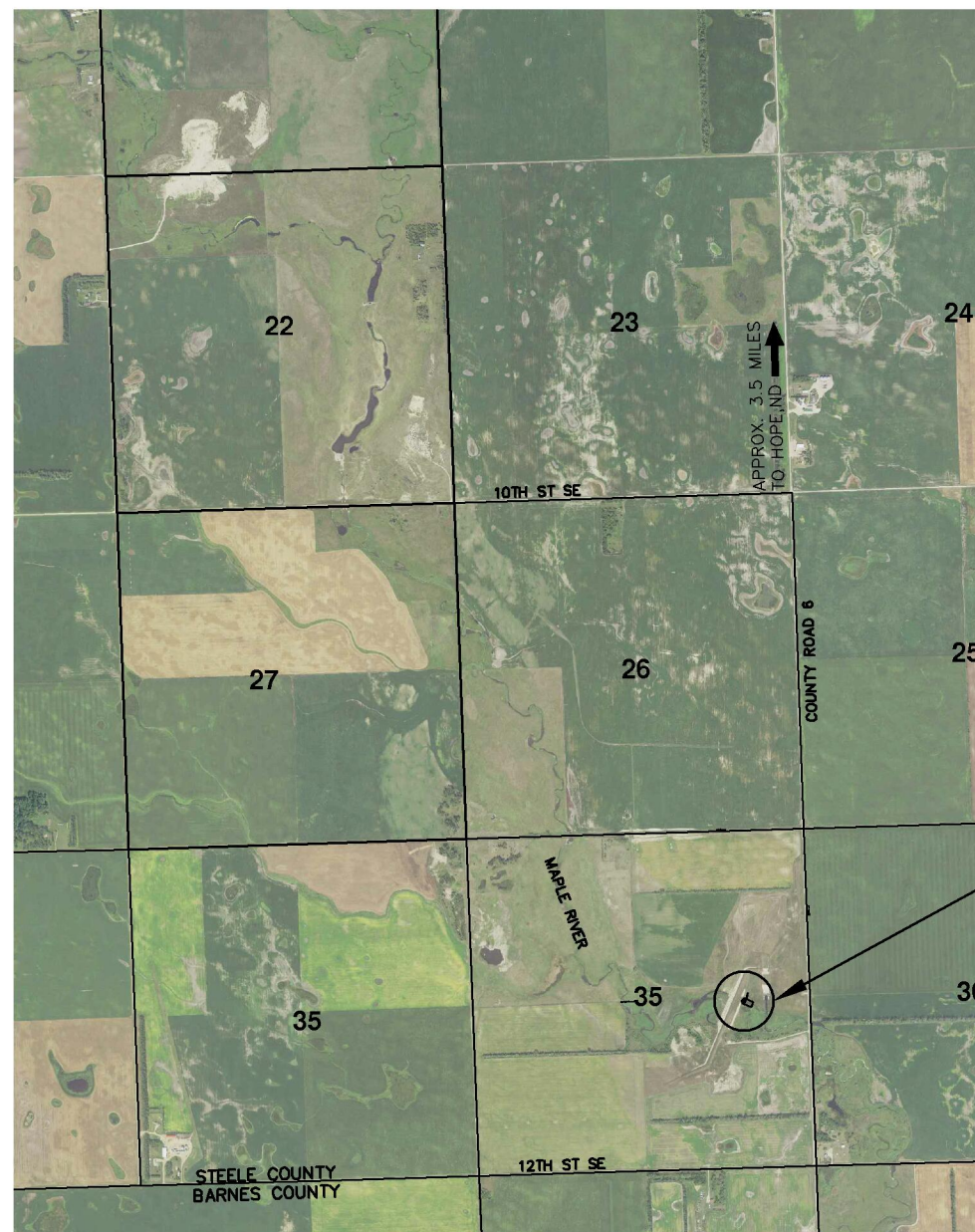
UPPER MAPLE RIVER DAM OUTLET CHANNEL IMPROVEMENTS

MAPLE - STEELE JOINT WATER RESOURCE DISTRICT

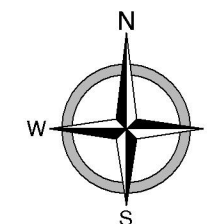
**Carpenter Township,
Steele County, North Dakota**



VICINITY MAP



PROJECT LOCATION



APPROX. SITE LOCATION: 47°14'49"N 97°43'55"W

PROJECT No. 20002-890

PRELIMINARY

FILE LOCATION: R:\Civil 3D Projects\20002\20002-890\DRAWINGS\DESIGN\20002-890-PP.dwg

D

C

B

A

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GENERAL

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01.31.19	SHEET 2	OF 2	G-002	TABLE OF CONTENTS

CIVIL

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01.31.19	SHEET 2	OF 6	C-002	CIVIL NOTES - GENERAL
01.31.19	SHEET 3	OF 6	C-101	ALIGNMENT LAYOUT AND CONTROL - ALIGNMENTS, LINE AND CURVE TABLES, AND SURVEY CONTROL
01.31.19	SHEET 4	OF 6	C-102	GENERAL LAYOUT AND EROSION CONTROL PLAN
01.31.19	SHEET 5	OF 6	C-201	PLAN AND PROFILE
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TOTAL SHEETS: 8

PRELIMINARY



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MAPLE - STEELE JOINT WATER RESOURCE DISTRICT
CARPENTER TOWNSHIP, STEELE COUNTY, NORTH DAKOTA
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DATE:	01.31.19
REVISED:	---
REVISED:	---
REVISED:	---
REVISED:	---
REVISED:	---
RECORD:	---

PROJECT No.	20002-890
MANAGER:	MMO
DESIGNER:	JWP
DRAFTER:	RJK
REVIEWER:	KRL

G-002

SHEET 2 OF 2

D
C
B
A

CIVIL LEGEND

	BENCHMARK
	IRON MONUMENT FOUND
	EXISTING GAS LINE MARKER
	EXISTING GAS GATE VALVE
	EXISTING POWER POLE
	EXISTING LIGHT POLE
	EXISTING LIGHT POLE W/SIGN
	EXISTING GUY WIRE
	EXISTING TRAFFIC SIGNAL ARM
	EXISTING SIGN
	EXISTING CULVERT W/FLARED END SECTION (F.E.S.)
	EXISTING FLARED END SECTION (F.E.S.)
	EXISTING CURB STOP
	EXISTING HYDRANT W/GATE VALVE
	EXISTING GATE VALVE
	EXISTING FITTINGS
	EXISTING PLUG
	EXISTING PROPANE TANK
	EXISTING SANITARY SEWER MANHOLE
	EXISTING SANITARY SEWER CLEANOUT
	EXISTING STORM SEWER CATCH BASIN
	EXISTING STORM SEWER MANHOLE
	EXISTING WATER MAIN
	EXISTING WATER SERVICE W/CURB STOP
	EXISTING SANITARY SEWER
	EXISTING SANITARY FORCEMAIN
	EXISTING SANITARY SEWER SERVICE
	EXISTING STORM SEWER
	EXISTING STORM SEWER FORCEMAIN
	EXISTING STEAM PIPE
	EXISTING AIR CONDITIONER
	EXISTING UTILITY PEDESTAL
	EXISTING UTILITY MANHOLE
	EXISTING UNDERGROUND COMMUNICATIONS
	EXISTING UNDERGROUND FIBER
	EXISTING UNDERGROUND TELEPHONE
	EXISTING OVERHEAD TELEPHONE
	EXISTING UNDERGROUND TELEVISION
	EXISTING OVERHEAD TELEVISION
	EXISTING UNDERGROUND GAS
	EXISTING UNDERGROUND ELECTRIC
	EXISTING OVERHEAD POWER
	EXISTING BARBED WIRE FENCE
	EXISTING CHAIN LINK/STEEL FENCE
	EXISTING PVC/WOOD FENCE
	EXISTING SHRUB
	EXISTING STUMP
	EXISTING TREE/TREE CLUSTER
	EXISTING SPRINKLER HEAD
	EXISTING CLUSTER BOX UNIT (CBU)
	EXISTING MAILBOX
	EXISTING CURB AND GUTTER
	CURB AND GUTTER REMOVAL & REPLACEMENT
	REMOVE EXISTING SURFACE
	EXISTING ASPHALT SURFACE
	EXISTING CONCRETE SURFACE
	EXISTING DECORATIVE COLORED CONCRETE
	EXISTING GRANULAR SURFACE
	EXISTING SIDEWALK/MULTI-USE PATH (UNKNOWN SURFACE)
	EXISTING LANDSCAPING
	EXISTING RIPRAP
	EXISTING WETLANDS
	EXISTING PERMANENT POOL

	NEW LIGHT POLE
	NEW LIGHT POLE W/SIGN
	NEW GUY WIRE
	NEW SIGN
	TRAFFIC CONTROL - DRUM
	TRAFFIC CONTROL - TUBULAR MARKER
	NEW CULVERT W/FLARED END SECTION (F.E.S.)
	NEW FLARED END SECTION (F.E.S.)
	NEW CURB STOP
	NEW HYDRANT W/GATE VALVE
	NEW GATE VALVE
	NEW TAPPING SLEEVE
	NEW FITTINGS
	NEW PLUG
	NEW SANITARY SEWER MANHOLE
	NEW SANITARY SEWER CLEANOUT
	NEW STORM SEWER CATCH BASIN
	NEW STORM SEWER MANHOLE
	NEW WATER MAIN
	NEW WATER SERVICE W/CURB STOP (S.B. ELEV.)
	NEW SANITARY SEWER
	NEW SANITARY FORCEMAIN
	NEW SANITARY SEWER SERVICE (S.S. ELEV.)
	NEW STORM SEWER
	NEW STORM SEWER FORCEMAIN
	NEW STEAM PIPE
	INSULATION PER DETAIL
	NEW BARBED WIRE FENCE
	NEW CHAIN LINK/STEEL FENCE
	NEW PVC/WOOD FENCE
	NEW INFLOW CURB AND GUTTER (MOUNTABLE/KNOCKED DOWN)
	NEW OUTFLOW CURB AND GUTTER (MOUNTABLE/KNOCKED DOWN)
	NEW INFLOW CURB AND GUTTER (HIGHBACK)
	NEW OUTFLOW CURB AND GUTTER (HIGHBACK)
	NEW CURB PAINT
	NEW ASPHALT SURFACE
	NEW CONCRETE SURFACE
	NEW CONCRETE APPROACH/DRIVEWAY
	NEW DECORATIVE COLORED CONCRETE
	NEW GRANULAR SURFACE
	NEW CRUSHED CONCRETE SURFACE
	NEW CONCRETE SIDEWALK/MULTI-USE PATH
	NEW DETECTABLE WARNING PANEL
	NEW RIPRAP
	NEW PERMANENT POOL
	NEW LANDSCAPING
	MILLING - 2" UNIFORM
	MILLING - 2" TAPERED
	ASPHALT PATCH
	LEVELING COURSE
	OVERLAY
	CHIPSEAL AND FOG COAT
	NEW CONCRETE VALLEY GUTTER
	NEW MEDIAN NOSE APRON
	NEW ADA RAMP W/WARNING PANEL
	NEW CLUSTER BOX UNIT (CBU)
	NEW MAILBOX
	NEW LARGE DECIDUOUS TREE
	NEW SMALL DECIDUOUS TREE
	NEW SHRUB
	NEW LARGE EVERGREEN TREE
	NEW SMALL EVERGREEN TREE

	DRAINAGE BREAK LINE
	EXISTING DRAINAGE DIRECTION
	FINISHED DRAINAGE DIRECTION & SLOPE
	FINISHED GRADE
	EXISTING CONTOUR ELEVATION
	FINISHED CONTOUR ELEVATION
	GRADE ELEVATIONS
	GRASS BUFFER
	PERMANENT STABILIZATION AREA
	SEDIMENTATION CONTROL WATTLE
	SEDIMENTATION CONTROL FENCE
	ROCK CHECK
	STABILIZED CONSTRUCTION ENTRANCE
	CONCRETE WASHOUT
	INLET PROTECTION DEVICE

ABBREVIATIONS:
 BOC = BACK OF CURB
 BOW = BACK OF WALK
 C = COMMUNICATION
 CB# = STORM SEWER CATCH BASIN
 CL = CENTERLINE
 CSP = CORRUGATED STEEL PIPE
 CO# = SANITARY SEWER CLEANOUT
 CS# = CONTROL STRUCTURE
 DIA = DIAMETER
 DIP = DUCTILE IRON PIPE
 E = ELECTRICAL
 ECC = EDGE OF CRUSHED CONCRETE
 EG = EXISTING GRADE
 EOC = EDGE OF CONCRETE
 EOP = EDGE OF PAVEMENT
 EOW = EDGE OF WALK
 EG = EXISTING GRADE
 EX = EXISTING
 F = FIBER OPTIC
 FES = FLARED END SECTION
 FG = FINISHED GRADE
 FL = FLOWLINE
 FM = FORCEMAIN
 G = GAS LINE
 HP = HIGH POINT
 INV = INVERT
 LP = LOW POINT
 MATCH = MATCH
 M# = STORM SEWER MANHOLE
 MT# = STORM SEWER TEE MANHOLE
 MM# = STORM SEWER MULTI-MANHOLE
 MC = MIDPOINT OF CURVE
 OHP = OVERHEAD POWER
 OHT = OVERHEAD TELEPHONE
 OHTV = OVERHEAD TELEVISION
 PC = POINT OF CURVATURE
 PRC = POINT OF REVERSE CURVE
 PVC = POLYVINYL CHLORIDE PIPE
 PT = POINT OF TANGENCY
 RIM = RIM OF STRUCTURE
 S# = SANITARY SEWER MANHOLE
 S.B. ELEV. = STOP BOX ELEVATION
 S.S. ELEV. = SANITARY SEWER SERVICE INVERT
 S.S. = SANITARY SEWER
 S.T. = STORM SEWER
 STA = ALIGNMENT STATION
 T = TELEPHONE
 TOC = TOP OF CONCRETE
 TOP = TOP OF PAVEMENT
 TOP = TOP OF PIPE
 TOW = TOP OF WALK
 TR# = SANITARY TELEVISION RISER
 TRANS = TRANSFORMER
 TV = TELEVISION
 U = UTILITY (UNKNOWN UTILITY)

PRELIMINARY



CIVIL LEGEND
 UPPER MAPLE RIVER DAM OUTLET CHANNEL IMPROVEMENTS
 MAPLE - STEELE JOINT WATER RESOURCE DISTRICT
 CARPENTER TOWNSHIP, STEELE COUNTY, NORTH DAKOTA
 CIVIL LEGEND

DATE:	01.31.19
REVISED:	----
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PROJECT No.	20002-890
MANAGER:	MMO
DESIGNER:	JWP
DRAFTER:	RJK
REVIEWER:	KRL

FILE LOCATION: R:\Civil\3D Projects\20002\20002-890\DRAWINGS\DESIGN\20002-890-PP.dwg

CLEARING AND GRUBBING/DEMOLITION:

1. THE CONTRACTOR SHALL EXERCISE CARE IN THEIR CONSTRUCTION OPERATIONS TO ENSURE THAT TREES, SHRUBS, FENCES, BUILDINGS AND GRASSES WITHIN THE RIGHT-OF-WAY AND CONSTRUCTION EASEMENT NOT DESIGNATED FOR REMOVAL ARE NOT DISTURBED. ANY CHANGE TO THESE ITEMS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
2. TREES AND BRANCHES MAY BE GROUND UP ON-SITE AND USED AS TEMPORARY OR PERMANENT MULCH.
3. ALL CLEARING AND GRUBBING WORK SHALL BE INCIDENTAL TO THE PROJECT.

UTILITIES:

1. NOT ALL UTILITIES MAY BE SHOWN. PRIOR TO DIGGING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL FOR UTILITY LOCATES AND TO IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND COORDINATE THEIR ACTIVITIES AND SCHEDULE ALL UTILITY RELOCATIONS. UTILITY LOCATES CAN BE REQUESTED FROM "NORTH DAKOTA ONE CALL".
2. CONTRACTOR MAY NEED TO WORK IN CONJUNCTION WITH UTILITY COMPANIES DURING CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER PRIOR TO DOING WORK WITH ANY AND ALL UTILITY COMPANIES. THERE SHALL BE NO CHANGE ORDERS FOR SCHEDULING CONFLICTS WITH UTILITY COMPANIES
3. THE CONTRACTOR SHALL LOCATE ALL BURIED UTILITIES ON THE SITE PRIOR TO DIGGING AND SHALL PROTECT THEM DURING CONSTRUCTION.

CONSTRUCTION LIMITS:

1. THE CONTRACTOR SHALL LIMIT WORK TO WITHIN THE CONSTRUCTION LIMITS SHOWN ON THE PLANS. CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE EXPENSE FOR WORK DONE OUTSIDE OF PROJECT RIGHT-OF-WAY.
2. CONTRACTOR VEHICLES, EQUIPMENT, AND MATERIALS SHALL BE STORED WITHIN THE SITE.

SIGNS AND DELINEATORS:

1. ALL EXISTING SIGNS, DELINEATORS, MAILBOXES, AND BRIDGE END MARKERS WITHIN THE SITE SHALL BE REMOVED, SALVAGED, AND RESET. ANY ITEMS REMOVED SHALL BE NEATLY STOCKPILED ON THE PROJECT RIGHT-OF-WAY AND ARE TO REMAIN THE PROPERTY OF THE OWNER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
2. ANY DAMAGED SIGNS SHALL BE REPLACED AT CONTRACTORS EXPENSE.
3. THE CONTRACTOR SHALL INSPECT ALL SIGNS, DELINEATORS, AND MAIL BOXES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DAMAGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES IDENTIFIED AFTER CONSTRUCTION BEGINS.

HAUL ROADS:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE THE SUITABILITY OF ROUTES WITH THE AGENCY HAVING CONTROL OF THE ROADS AND ACQUIRE THEIR APPROVAL PRIOR TO SUBMITTING A BID AND DOING THE WORK.
2. ANY DAMAGE TO ROADS AS A RESULT OF HAULING SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND AT NO COST TO THE OWNER.
3. TEMPORARY HAUL ROADS AND RAMPS REQUIRED SHALL BE INCIDENTAL TO THE PROJECT.

SPOIL BANKS:

1. EXCAVATED MATERIAL, UNLESS OTHERWISE USED ON THE PROJECT, SHALL BE PLACED IN SPOIL BANKS ADJACENT TO THE CHANNEL.
2. SPOIL BANKS SHALL NOT IMPEDE EXISTING DRAINAGE. THE CONTRACTOR WILL BE LIABLE FOR DAMAGE FROM ANY BLOCKED DRAINAGE.
3. NO SPOIL SHALL BE PLACED ON A ROAD.
4. TOP OF BERM SHALL BE GRADED SMOOTH AND LEVEL TO THE SATISFACTION OF THE ENGINEER. EXCESS EXCAVATION SHALL BE SPOILED BEHIND THE BERM, GENTLY GRADED AND MATCHING INTO THE EXISTING FIELD. THE CONSTRUCTION EASEMENT AREA SHALL BE UTILIZED FOR THE EXCESS EXCAVATION MATERIAL.
5. IT MAY ALSO BE NECESSARY TO MOVE SPOIL PARALLEL TO THE DRAIN TO ENSURE THAT THE SPOIL BANK APPEARS UNIFORM WITH THE GRADE OF THE SPOIL BANK MATCHING THE MINIMUM BERM GRADE.
6. TOLERANCE SHALL BE NO MORE THAN ONE FOOT VARIANCE FROM A MAXIMUM ACTUAL FILL TO A MINIMUM ACTUAL FILL AT A GRADE LINE PARALLEL TO THE MINIMUM BERM. (I.E. IF ONE SET UP A LASER AT GRADE AND WALKED THE BERM MAKING MARKS ON THE GRADE ROD, AT THE END OF THE MILE, THE MARKS SHOULD ALL BE WITHIN A ONE FOOT INTERVAL.)

CHANNEL APPEARANCE:

1. THE FINAL CONSTRUCTED CHANNEL SECTION SHALL FORM NEAT LINES WHEN VIEWED FROM ONE END OF A MILE TO THE OTHER END OF A MILE.
2. WAVINESS, BUMPS, OR DIVOTS SHALL NOT EXCEED MORE THAN 0.2' FROM THE DESIRED CHANNEL PROFILE.

PROJECT SCHEDULE:

1. CHANNEL CONSTRUCTION SHALL BEGIN AT THE DOWNSTREAM END AND PROCEED UPSTREAM.

PROJECT MAINTENANCE:

1. THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING PRIOR TO COMMENCING WORK ON THIS SITE.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR CHANNEL MAINTENANCE, WEED CONTROL, EROSION CONTROL AND REPAIR, SILT REMOVAL AND SPOILING, RE-GRADING BOTTOM AND RE-GRADING SIDE SLOPES UNTIL SEED IS ESTABLISHED. IT SHOULD BE THE INTENT TO ESTABLISH SEED GROWTH AS SOON AS CHANNEL AREAS ARE COMPLETED.
3. CONTRACTOR IS RESPONSIBLE FOR WEED CONTROL WITHIN THE PROJECT SITE THROUGHOUT DURATION OF PROJECT AND IT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. THIS MAY REQUIRE TILLING OR SPRAYING THE PROJECT SITE.

DISPOSAL NOTES:

1. NO MATERIAL, OTHER THAN SOIL, SHALL BE WASTED ON THE SITE.
2. REMOVED TREES, ROOTS, PLASTIC, WOOD, METAL, TIRES AND OTHER CONSTRUCTION MATERIAL OR DEBRIS SHALL BE PROPERLY DISPOSED OF OFF SITE. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT UNLESS OTHERWISE SPECIFIED.
3. ANY REMOVED ITEMS NOT SALVAGED AS SHOWN ON THE PLANS BECOME THE PROPERTY OF THE CONTRACTOR AND ARE THE CONTRACTOR'S RESPONSIBILITY ONCE OFF THE SITE.
4. NO MATERIAL MAY BE BURIED OR BURNED ON SITE.

SURVEY NOTES:

1. CONTRACTOR REQUESTED SURVEYS CONDUCTED AFTER CONSTRUCTION IS COMPLETE FOR THE PURPOSE OF VERIFYING EXCAVATION AND EMBANKMENT QUANTITIES SHALL BE AT THE CONTRACTOR'S EXPENSE.
2. ENGINEER REQUIRES A 48 HOUR NOTICE FOR ANY CONTRACTOR REQUESTED SURVEY. CONTRACTOR SHALL COORDINATE WITH RPR FOR SCHEDULING.

TRAFFIC CONTROL:

1. ALL TRAFFIC CONTROL MEASURES NEEDED TO COMPLETE THE WORK SHALL BE INCIDENTAL TO THE PROJECT.

PRELIMINARY



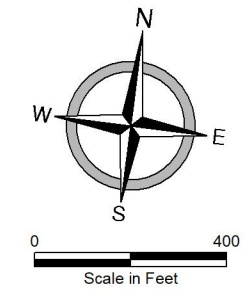
CIVIL NOTES
UPPER MAPLE RIVER DAM OUTLET CHANNEL IMPROVEMENTS
MAPLE - STEELE JOINT WATER RESOURCE DISTRICT
CARPENTER TOWNSHIP, STEELE COUNTY, NORTH DAKOTA
GENERAL

DATE:	01.31.19
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PROJECT No.	20002-890
MANAGER:	MMO
DESIGNER:	JWP
DRAFTER:	RJK
REVIEWER:	KRL

C-002

FILE LOCATION: R:\Civil\3D Projects\20002\20002-890\DRAWINGS\DESIGN\20002-890-PP.dwg



PRELIMINARY



HORIZONTAL CONTROL
 NORTH DAKOTA COORDINATE SYSTEM OF 1929, SOUTH ZONE
 COMBINATION FACTOR (cf) = .9998875
 ALL COORDINATES ARE CASS COUNTY GROUND COORDINATES

VERTICAL CONTROL
 NGVD 29

BENCHMARKS/SURVEY CONTROL
 PRIOR TO PROJECT START, OWNER WILL SET AND ESTABLISH
 BENCHMARKS AND SURVEY CONTROL FOR THE PROJECT.

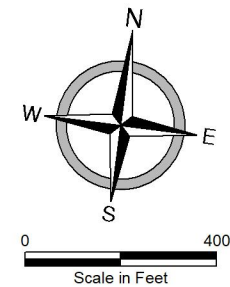
ALIGNMENT LAYOUT AND CONTROL
 UPPER MAPLE RIVER DAM OUTLET CHANNEL IMPROVEMENTS
 MAPLE - STEELE JOINT WATER RESOURCE DISTRICT
 CARPENTER TOWNSHIP, STEELE COUNTY, NORTH DAKOTA
 ALIGNMENTS, LINE AND CURVE TABLES, SURVEY CONTROL

DATE:	01.31.19
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PROJECT No.	20002-890
MANAGER:	MMO
DESIGNER:	JWP
DRAFTER:	RJK
REVIEWER:	KRL

C-101
 SHEET 3 OF 6

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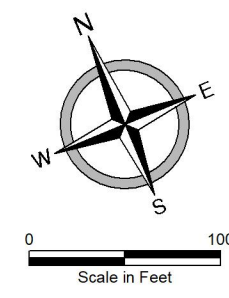
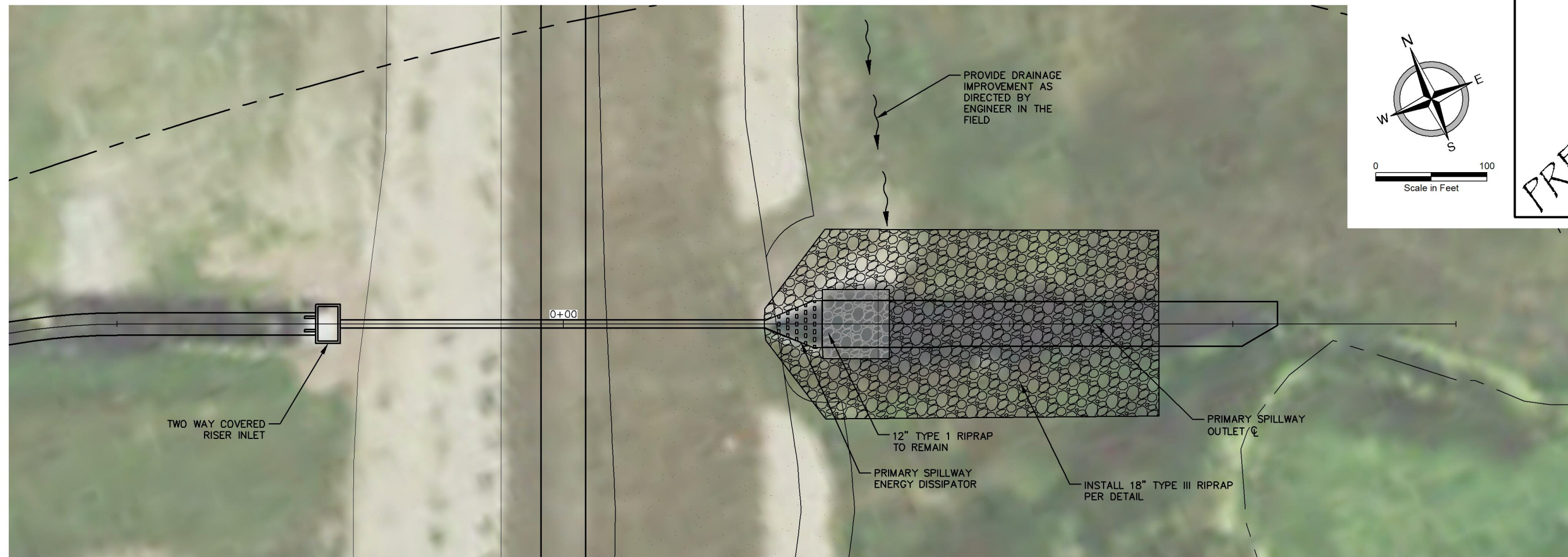
EROSION CONTROL NOTES:

1. THE DISTURBANCE AREA OF THE PROJECT IS LESS THAN ONE ACRE SO THE NORTH DAKOTA STORM WATER PERMIT DOES NOT NEED TO BE FILLED OUT WITH THE NORTH DAKOTA DEPARTMENT OF HEALTH. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES TO MINIMIZE EROSION ON PROJECT SITE. ALL BMP'S SHALL BE PART OF THE STORM WATER MANAGEMENT PAY ITEM
2. SITE INSPECTIONS ARE REQUIRED EVERY 14 DAYS OR AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. ALL INSPECTIONS MUST BE DOCUMENTED. CONTRACTOR SHALL PROVIDE ENGINEER WITH A COPY OF EACH INSPECTION REPORT. CONTRACTOR SHALL PROVIDE ON-SITE RAIN GAUGE TO MEASURE RAINFALL TOTALS.
3. THE RECEIVING WATER IS A TRIBUTARY TO THE WILD RICE RIVER. BMP'S SHALL BE USED TO MINIMIZE ANY SEDIMENT FROM PROJECT SITE INTO THE RECEIVING WATERS.
4. ALL AREAS NOT WORKED IN FOR 21 DAYS SHALL BE TEMPORARY MULCHED. THIS WORK IS PART OF STORM WATER MANAGEMENT AND IS PART OF THE STORM WATER MANAGEMENT PAY ITEM.
5. TRACKED SEDIMENT SHALL BE REMOVED FROM ALL ROADS WITHIN 24 HOURS OF SEDIMENT TRACKING. IF SEDIMENT TRACKING IS SEVERE, A CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SHOWN IN THE PLAN DETAILS.
6. TEMPORARY ROCK CHECKS SHALL BE INSTALLED PRIOR TO STARTING WORK IN ANY AREA OF THE PROJECT. THEY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS. TEMPORARY ROCK CHECKS SHALL BE REMOVED ONCE GROWTH IS ESTABLISHED OF PERMANENT VEGETATION.
7. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING PROJECT SITE DUST. WATERING PROJECT SITE AS WELL AS WATERING THE HAUL ROADS MAY BE NEEDED.
8. CONTRACTOR IS RESPONSIBLE FOR NON-HAZARDOUS WASTE BROUGHT TO AND STORED AT THE SITE. ALL TRASH AND DEBRIS SHALL BE PICKED UP DAILY AND DISPOSED OF IN PROPER CONTAINERS. NO MATERIAL IS ALLOWED TO BE BURIED OR BURNED ON SITE. ALL OIL, GAS, AND OTHER PETROLEUM PRODUCTS SHALL BE STORED IN SEALED CONTAINERS WITH PROPER LABELS.
9. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY SPILL.
10. ALL ITEMS THAT ARE REQUIRED IN THE PLANS AS PART OF STORM WATER MANAGEMENT SHALL BE PAID FOR BY THE STORM WATER MANAGEMENT PAY ITEM UNLESS A SEPARATE BID ITEM IS SPECIFIED.
11. ALL CULVERTS SHALL HAVE RIPRAP INSTALLED UPSTREAM AND DOWNSTREAM OF THEM WITHIN 3 DAYS OF BEING INSTALLED.
12. CONTRACTOR IS RESPONSIBLE FOR MAKING SURE SUBCONTRACTORS STAY IN COMPLIANCE WITH STORM WATER MANAGEMENT GUIDELINES.
13. ALL EQUIPMENT SHALL ARRIVE ON-SITE IN A CLEAN, OPERABLE MANNER. EXCESS DIRT, VEGETATION, OIL, GREASE, OR ANY OTHER CONTAMINANTS SHALL BE CLEANED OFF PRIOR TO ENTERING PROJECT SITE.
14. CONTRACTOR SHALL MAINTAIN A STOCKPILE OF APPROPRIATE BMP'S ON-SITE FOR USE IN EMERGENCY SITUATIONS. THE STOCKPILE SHOULD INCLUDE EROSION CONTROL BLANKET, SILT FENCE, SPARE RIPRAP, AND SEEDING MATERIAL
15. AT THE COMPLETION OF THE PROJECT, PERMANENT GRASS SEEDING SHALL BE INSTALLED. PERMANENT SEEDING IS PAID FOR BY A BID ITEM AND IS NOT PART OF STORM WATER MANAGEMENT.
16. IF CONTAMINATED SOILS ARE ENCOUNTERED, ENGINEER SHALL BE NOTIFIED IMMEDIATELY. PROPER DISPOSAL PROCEDURES SHALL BE FOLLOWED TO REMOVE CONTAMINATED MATERIAL.

GENERAL LAYOUT AND EROSION CONTROL PLAN
 UPPER MAPLE RIVER DAM OUTLET CHANNEL IMPROVEMENTS
 MAPLE - STEELE JOINT WATER RESOURCE DISTRICT
 CARPENTER TOWNSHIP, STEELE COUNTY, NORTH DAKOTA
 GENERAL LAYOUT AND EROSION CONTROL PLAN

DATE:	01.31.19
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PROJECT No.	20002-890
MANAGER:	MMO
DESIGNER:	JWP
DRAFTER:	RJK
REVIEWER:	KRL

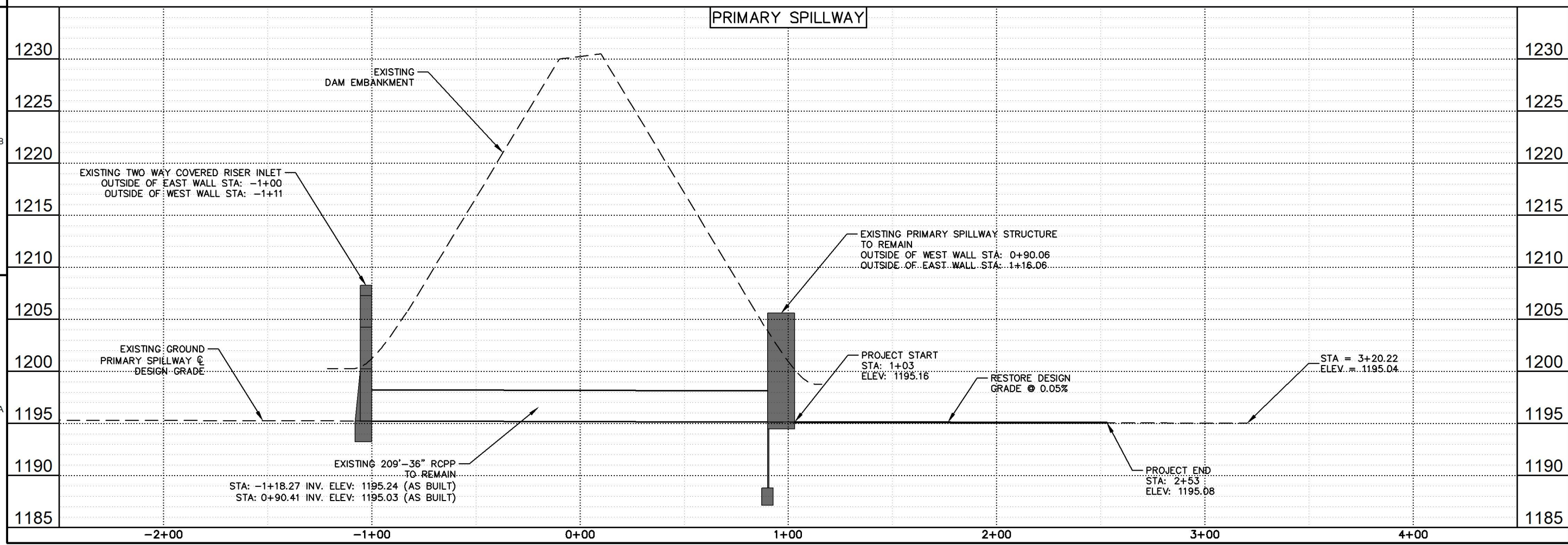
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PRELIMINARY



PLAN AND PROFILE
 UPPER MAPLE RIVER DAM OUTLET CHANNEL IMPROVEMENTS
 MAPLE - STEELE JOINT WATER RESOURCE DISTRICT
 CARPENTER TOWNSHIP, STEELE COUNTY, NORTH DAKOTA
PRIMARY SPILLWAY



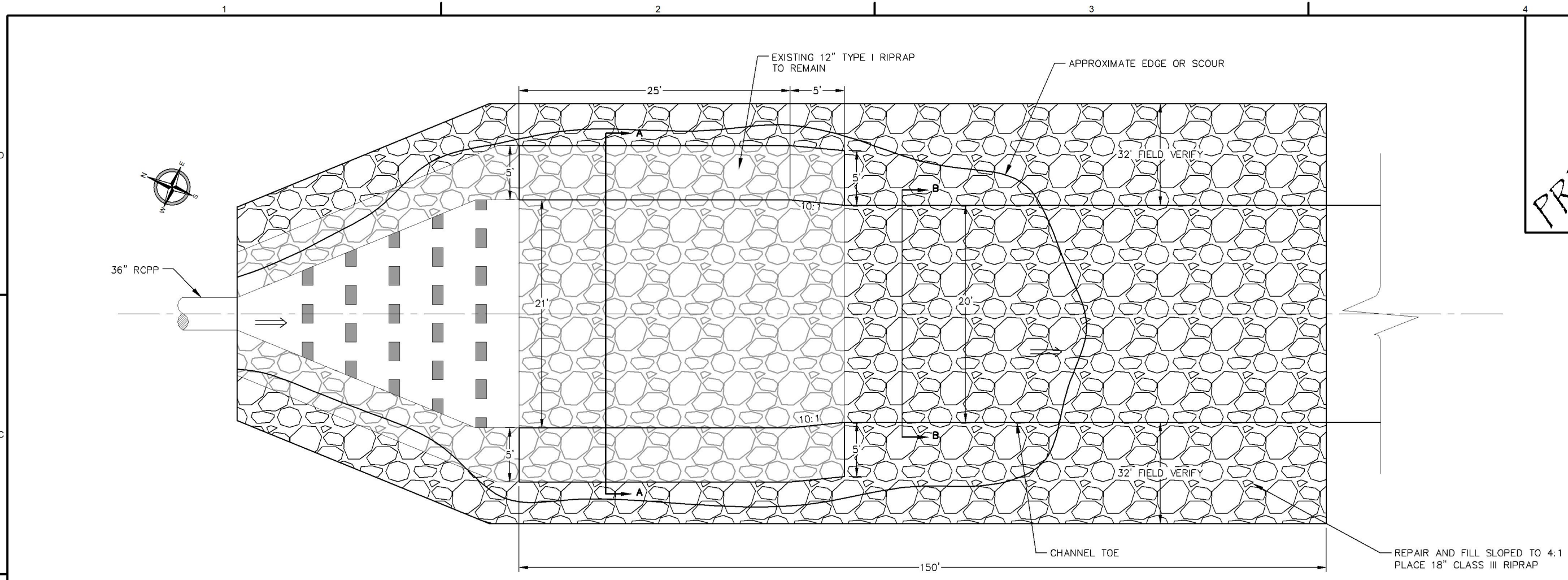
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PROJECT No.	20002-890
MANAGER:	MMO
DESIGNER:	JWP
DRAFTER:	RJK
REVIEWER:	KRL
C-201	
SHEET	5 OF 6

PRELIMINARY



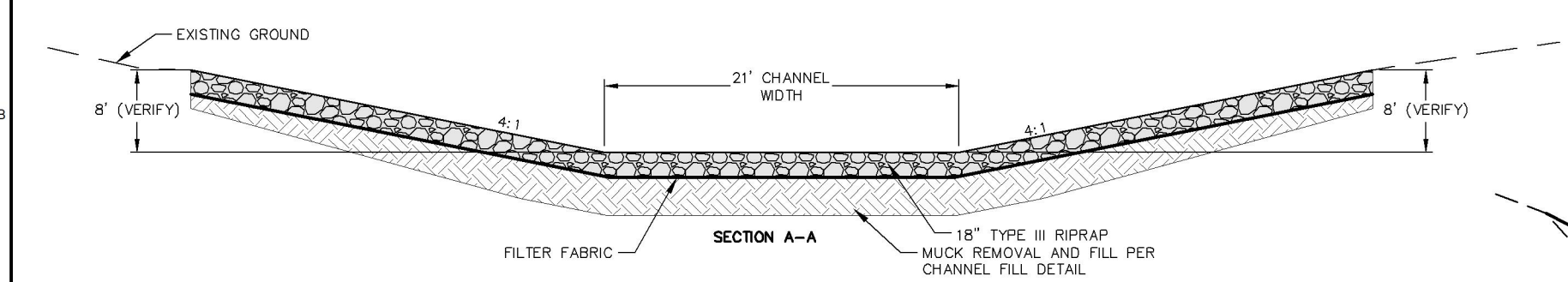
TYPICAL DETAILS
 UPPER MAPLE RIVER DAM OUTLET CHANNEL IMPROVEMENTS
 MAPLE - STEELE JOINT WATER RESOURCE DISTRICT
 CARPENTER TOWNSHIP, STEELE COUNTY, NORTH DAKOTA
 TYPICAL DETAILS

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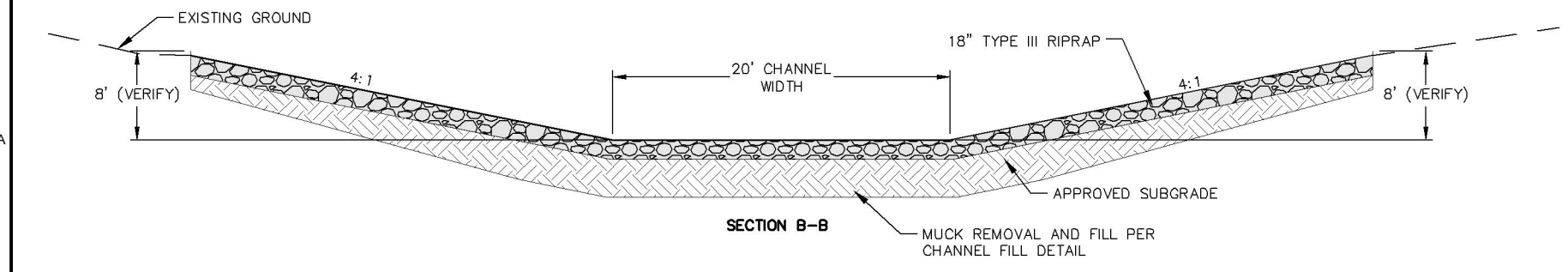
PRIMARY SPILLWAY CHANNEL TRANSITION

NO SCALE



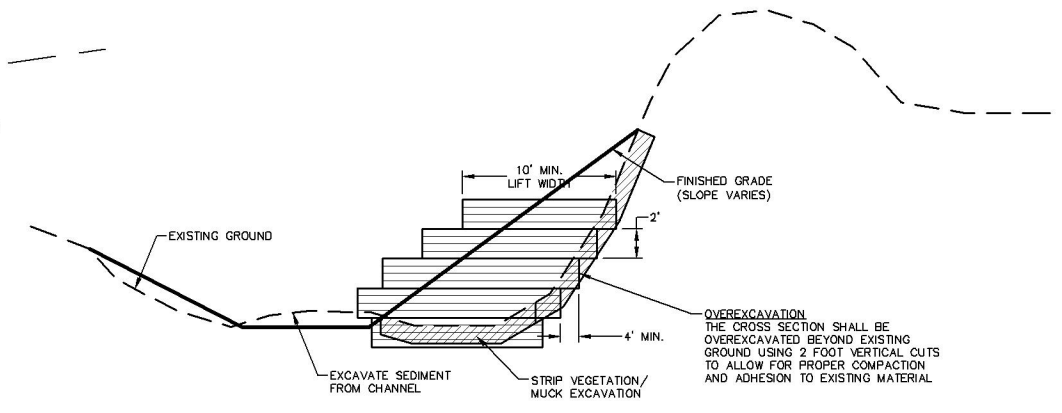
PRIMARY SPILLWAY 20' CHANNEL

NO SCALE



PRIMARY SPILLWAY 20' CHANNEL

NO SCALE



EMBANKMENT NOTES:

1. THE CROSS-SECTION SHALL BE OVEREXCAVATED BEYOND EXISTING GROUND USING 2 FOOT VERTICAL CUTS TO ALLOW FOR PROPER COMPACTION AND ADHESION TO EXISTING MATERIAL.
2. THE EMBANKMENT MATERIAL SHALL BE OBTAINED BY AN APPROVED BORROW PIT AND SHALL BE CLAY ONLY. THE EMBANKMENT MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED 6 INCHES IN DEPTH AND COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY A STANDARD PROCTOR TEST IN ACCORDANCE WITH ASTM D698. MOISTURE CONTENT SHALL BE MAINTAINED DURING COMPACTION BETWEEN 1% BELOW OPTIMUM AND 3% ABOVE OPTIMUM AS DETERMINED BY STANDARD PROCTOR.
3. ALL CONSTRUCTED EMBANKMENT LAYERS SHALL BE TIED INTO UNDISTURBED SOIL ALONG THE OVEREXCAVATION SLOPE BY CONSTRUCTING VERTICAL WALLS 2 FEET HIGH. ALL CONSTRUCTED EMBANKMENT LAYERS SHALL BE A MINIMUM OF 10 FEET WIDE. THE CROSS-SECTION SHALL BE OVERFILLED TO ALLOW FOR PROPER COMPACTION AND EXCAVATED TO FINAL GRADES AND SLOPES.
3. NO PAYMENT IS MADE FOR OVEREXCAVATION/OVERBUILD NEEDED TO FILL THE CHANNEL SLOPE AS PER THE DETAIL SHOWN.

TYPICAL SECTION - CHANNEL FILL DETAIL

NO SCALE

**Upper Maple River Dam Outlet Channel Improvements
Maple - Steele Joint Water Resource District
Cass County, North Dakota**

Engineer's Preliminary Opinion of Probable Cost

BID ITEM NO. & DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES			
					NDSWC (45%)	RRJWRD (65%)	CASS COUNTY (75%)	LOCAL
1. Mobilization	LS	1	\$5,000.00	\$5,000.00	\$2,250.00	\$1,787.50	\$721.88	\$240.63
2. Topsoil - Stripping & Spreading	LS	1	\$5,000.00	\$5,000.00	\$2,250.00	\$1,787.50	\$721.88	\$240.63
3. Excavation	CY	300	\$8.00	\$2,400.00	\$1,080.00	\$858.00	\$346.50	\$115.50
4. Embankment	CY	200	\$8.00	\$1,600.00	\$720.00	\$572.00	\$231.00	\$77.00
5. Riprap - Class III	CY	800	\$80.00	\$64,000.00	\$28,800.00	\$22,880.00	\$9,240.00	\$3,080.00
6. Riprap Filter Blanket	SY	1,500	\$3.00	\$4,500.00	\$2,025.00	\$1,608.75	\$649.69	\$216.56
7. Dewatering	LS	1	\$5,000.00	\$5,000.00	\$2,250.00	\$1,787.50	\$721.88	\$240.63
8. Seeding - Type III	LS	1	\$3,000.00	\$3,000.00	\$1,350.00	\$1,072.50	\$433.13	\$144.38
9. Floating Silt Curtain	EA	1	\$1,500.00	\$1,500.00	\$675.00	\$536.25	\$216.56	\$72.19
Construction Subtotal				\$92,000.00	\$41,400.00	\$32,890.00	\$13,282.50	\$4,427.50
Engineering - Preliminary				\$16,000.00	\$7,200.00	\$5,720.00	\$2,310.00	\$770.00
Engineering - Design				\$10,000.00	\$4,500.00	\$3,575.00	\$1,443.75	\$481.25
Engineering - Construction				\$10,000.00	\$4,500.00	\$3,575.00	\$1,443.75	\$481.25
Owner Administration Expenses				\$1,000.00	\$450.00	\$357.50	\$144.38	\$48.13
Project Contingencies				\$18,000.00	\$8,100.00	\$6,435.00	\$2,598.75	\$866.25
TOTAL PROJECT COST				\$147,000.00	\$66,150.00	\$52,552.50	\$21,223.13	\$7,074.38



P.O. Box 65
108 Main Street
Harwood, ND 58042-0065

(701) 281-0314 (Phone)
(701) 282-0543 (Fax)
Email: cityauditor@cityofharwood.com
www.cityofharwood.com

RECEIVED
CASS COUNTY COMMISSION

MAR 11 2019

March 8, 2019

Flood Sales Tax Committee
c/o Mary Scherling, Chairwoman
PO Box 2806
211 Ninth Street South
Fargo, ND 58108

Dear Flood Sales Tax Committee,

The City of Harwood is requesting funding assistance for a flood risk reduction project from the Flood Sales Tax Committee.


The City of Harwood is submitting information for a riverbank rehabilitation project. The project involves rehabilitating/reconstructing a portion of the east bank of the Sheyenne River in Harwood. The City operates and maintains a levee and storm water control structure at that location and has been dealing with seepage at that location over the years. The intent of this project is to rehabilitate the riverbank to prevent further bank deterioration and allow the riverbank and levee to perform as intended during periods of higher river flows.

Attached to this letter are the following:

- Location map
- Estimate of total project cost

The total project cost is estimated to be \$74,000 and City of Harwood is requesting 50% cost participation from the sales tax program, which totals \$37,000. The other half of the cost is to be contributed by the City. Thank you for your consideration of this request.

Sincerely,

for 
Bill Rohrich
Mayor of Harwood



Harwood Levee Rehabilitation

City of Harwood, ND

3/8/2019

Engineer's Preliminary Opinion of Probable Cost

	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	POTENTIAL FUNDING SOURCES	
						County Sales Tax (50%)	LOCAL (50%)
	<u>Construction Items</u>						
1.	Mobilization	LS	1	\$5,000.00	\$5,000.00	\$2,500.00	\$2,500.00
2.	Clear and Grub	LS	1	\$5,000.00	\$5,000.00	\$2,500.00	\$2,500.00
3.	Topsoil Stripping and Spreading	SY	1,160	\$4.00	\$4,640.00	\$2,320.00	\$2,320.00
4.	Excavation	CY	600	\$9.00	\$5,400.00	\$2,700.00	\$2,700.00
5.	Embankment - Import	CY	600	\$16.00	\$9,600.00	\$4,800.00	\$4,800.00
6.	Removal of Non-Suitable Material	CY	600	\$5.00	\$3,000.00	\$1,500.00	\$1,500.00
7.	Seeding - Type III	SY	1,160	\$1.00	\$1,160.00	\$580.00	\$580.00
8.	Storm Water Management	LS	1	\$1,000.00	\$1,000.00	\$500.00	\$500.00
9.	Material Testing	Invoice	Allowance	\$5,000.00	\$5,000.00	\$2,500.00	\$2,500.00
				Total Construction	\$39,800.00	\$19,900.00	\$19,900.00
				Contingencies (~25%)	\$10,200.00	\$5,100.00	\$5,100.00
				Engineering	\$8,000.00	\$4,000.00	\$4,000.00
				Geotechnical / Environmental	\$3,000.00	\$1,500.00	\$1,500.00
				Bidding	\$4,000.00	\$2,000.00	\$2,000.00
				Permitting	\$5,000.00	\$2,500.00	\$2,500.00
				Construction Survey	\$3,000.00	\$1,500.00	\$1,500.00
				Legal & Adm. Fees	\$1,000.00	\$500.00	\$500.00
				TOTAL PROJECT COST	\$74,000.00	\$37,000.00	\$37,000.00

NOTES:

- 1 Levee anticipated to have 10' top width with 4:1 side slopes.

Cass County

Zoom In Zoom Out Pan Zoom Prev Zoom Next Zoom Select Zoom Extent Clear Search Identify Legend Results Map Tips Draw Measure Reports Print map

Navigation Commands View Tools Reports

Layers Transparency

- 2011 Imagery
- 2014 Imagery
- 2016 Imagery
- 2017 Imagery
- Basemap
 - CassBasemap1
 - CassBasemap2
 - CassBaseMap3
- Highway Shields
- Inter-State/State Hwys
- Muni Centerlines
- County Centerlines
- Township Centerlines
- Parks
- Public Dynamic
 - Parcel Labels
 - Parcel Annotation
 - Bearings
 - Distance
 - Misc
 - Radius
- Plat Annotation
 - Bearings
 - BlockNumber
 - Distance
 - LotNumber
 - Misc
 - Radius
- West Fargo Plat Anno
 - Fargo Addresses
 - Cass Addresses
- Subdivision
- City Limits
- ET Boundary
- Section_Label
- Q_Section_Label
- QQ_Section_Label
- Fargo Buildings
- County Buildings
- County Parcels
- Sections
- QSections
- QQSections
- Polling Locations
- Voting Precincts
- School Districts
- Water Resource Districts
- Soils



Scale 1: 6000

Cass County

Zoom In Zoom Out Pan Zoom Prev Zoom Next Zoom Select Zoom Extent Clear Search Identify Legend Results Map Tips Draw Measure Reports Print map

Navigation Commands View Tools Reports

Layers Transparency

- 2011 Imagery
- 2014 Imagery
- 2016 Imagery
- 2017 Imagery

Basemap

- CassBasemap1
- CassBasemap2
- CassBaseMap3

- Highway Shields
- Inter-State/State Hwys
- Muni Centerlines
- County Centerlines
- Township Centerlines

Public Dynamic

Public Dynamic

Parcel Labels

Parcel Annotation

Bearings

Distance

Misc

Radius

Plat Annotation

Bearings

BlockNumber

Distance

LotNumber

Misc

Radius

West Fargo Plat Anno

Fargo Addresses

Cass Addresses

- Subdivision
- City Limits
- ET Boundary
- Section_Label
- Q_Section_Label
- QQ_Section_Label
- Fargo Buildings
- County Buildings
- County Parcels
- Sections
- QSections
- QQSections
- Polling Locations
- Voting Precincts
- School Districts
- Water Resource Districts
- Soils



Scale 1: 1000